

# The Relationship between Coordination Mechanisms and Communication Efficiency in Projects Involving Marketing Managers: Quantitative Findings from Moroccan SMEs

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## Abstract

Project coordination is recognized as one of the most important aspects that should be integrated effectively in project management to guarantee project success. In fact, coordination provides organization the ability to integrate heterogeneous activities for achieving specific targets. In project, when teams are built according to cross-functional approach, coordination is required to enhance communication between all project stakeholders. This article is in search of the relationship between specific project coordination mechanisms, adopted by marketing managers to integrate other functional activities, and project communication efficiency. Methodologically, our research was based on a quantitative questionnaire distributed to 107 functional managers involved in cross-functional project team in Moroccan SMEs. An appropriate statistical analysis was deployed to examine data collected. Findings show the existence of a positive correlation between project coordination mechanisms and project communication efficiency. Besides, the importance given to marketing managers' participation in project meetings was found as a factor impacting the amount of time devoted to. Therefore some insights are emphasized to develop research in this field.

**Keywords:** coordination mechanisms, project communication efficiency, organization theory, marketing integration, cross-functional approach

## 1. Introduction

The coordination is one of the basic pillars made to build a well organized and structured system. Consequently, organization requires from the coordination process the implementation of a number of mechanisms that could facilitate communication and cooperation between different organizational units in order to converge their efforts, apparently divergent, towards the achievement of the organization's purpose. As well, coordination brings cohesion to the work divided in an organizational structure. It acts on those mechanisms to properly identify and master the operation of a complex system.

In project, as a temporary organization, coordination is a principal leverage to homogenize and streamline work between project management processes. Accordingly, they could produce successfully, from an innovative idea, a unique product, service or another specific creation. In this kind of activity, coordination process is recognized as a success factor especially when project team is cross-functional. This project team approach is adopted in various categories of projects (new product development projects, product improvement and repositioning projects, launch of a new activity projects, intermediates design projects, etc.) involving the contribution of various stakeholders, among others, the marketing manager. In this context, coordination process seeks to guarantee an efficient communication between marketing manager and other managers in the same project team. Indeed, in this project team approach, a range of coordination mechanisms could be deployed to fit with different situations that embroil interfaces between the marketing manager and any other project's stakeholder (engineering manager, financial manager, production manager, supplier, customer, etc.). These coordination mechanisms should provide project team, when the marketing manager's contribution is noteworthy, the

capability to facilitate data and information circulation and in that way make possible the enhancement of project communication process performance.

Theoretically, coordination mechanisms deployed to articulate marketing manager task with that of other cross-functional project stakeholders and how that could influence the communication efficiency seems to be not deliberately studied. Indeed, the research found in the managerial literature deal, in project context, with the marketing implication and its interaction with specific functional areas (research and development, logistics, production, etc.). This research tries to provide some insights about the importance of marketing department involvement in some project categories and thus the inevitability to study how project coordination should be made. The lack found in this context is that the literature does not, in a straight line, investigate how marketing manager coordinates simultaneously with project stakeholders and how project communication efficiency could be influenced. The purpose of this research paper is to investigate about the potential linkage between the project communication efficiency and the specific project coordination mechanisms used to integrate marketing activities with other functional activities. As well, the study of the potential association between all project coordination mechanisms with each other, and the test of the impact of the importance given to manager's participation in project meetings on the amount of time devoted to are accomplished.

Our theoretical background is based on the existing literature regarding the three main points of the research. First, organization theory is used to define coordination concept in order to clarify the importance of coordination mechanisms in the enhancement of organization management. Second, project management literature is also deployed to explain coordination mechanisms impact in project context when its design and leading involve the commitment of several functional units (cross-functional approach). Third, marketing implication and communication efficiency are two concepts that the new product development and project management literature could be helpful in revealing their characteristics and potential association with the concepts cited above.

## 2. Literature Review

Coordination, in a project context, should be explained in the light of the organization theory focusing on the temporary nature of the project organization. Moreover, it is convenient to highlight the importance of the coordination process in the cross-functional project team whose contribution of some stakeholders is essential, including the marketing manager. These contributions are coordinated by specific mechanisms adopting a distinct form, definitely justified in organizational structure. Consequently, this project coordination form is looking for enhanced project communication efficiency.

### 2.1 Coordination from the Organization Theory

Etymologically, the Oxford Advanced Learner's Dictionary defines coordination as the act of making parts of something, groups of people, etc. work together in an efficient and organized way. Moreover, it is argued that it is the organization of various elements of a body or complex activity to enable them to work together effectively. In this conception, it could be mentioned that coordination is based, to legitimize, on several specific assumptions: (a) the existence of a system aggregating components, possibly, in interactions; (b) those components are assumed to be quite different in nature or in their tasks within the same system; (c) the ability to standardize the work of the constituent components of the system; (d) the existence of an objective pursued by the system and others by components. From this perspective, coordination appears to be fundamental for any organized system operation since the work to accomplish is divided (Mintzberg, 1979). Hence, coordination is acknowledged as an important aspect of organizational structure that includes the design of systems to ensure effective communication, coordination, and integration of efforts across departments (Daft, 2010). Another similar conception states that coordination is seen as it is the management of dependencies between activities (Malone & Crowston, 2001). Besides, it could be admitted that coordination is a principle of organization like it is mentioned by Urwick and Gulick acronym named POSDCORB: planning, organizing, staffing, directing, coordinating, reporting, and budgeting. Nevertheless, it doesn't explicitly recognize the central relationship that links coordination with each organization and administration principles. In fact, coordination is a part of planning, because it tells what to include in a good plan and how to execute it. Coordination is part of organizing, because it takes the first lead (Gulick & Urwick, 1957). Coordination is part of staffing, because it specifies who will be a staff and the rational placement. Coordination is part of directing, because it gives it a clear focus. Coordination is coordinating. Coordination is part of reporting, because it makes it realistic. Finally, coordination is part of budgeting, because it gives it a good appraisal (Osifo, 2012).

All these conceptions cited above, although they formalize the objective pursued by the process of coordination and the characteristics of the context of its application, but omit to highlight the functional procedures of the

process and even less appropriate behavior in a conflict between components of a system. Some broader conceptions specify that coordination is an approach deployed to overcome the disadvantage of the static design of the process within the structure. It brings dynamism to the process through the suggestion of alternatives by identifying dependencies within these processes and considering alternative methods of coordination to deploy (Crowston & Osborn, 1998). Moreover, coordination could be recognized at its most effective not as a mechanical process but rather a process of continuous interrelating between the parts and the whole (Gittel, 2011). With reference to this conception, called Relational Coordination Theory, it is argued that it is impossible... to work most effectively at coordination until you have made up your mind where you stand philosophically in regard to the relation of parts to wholes. We have spoken of the relation of departments—sales and production, advertising, and financial—to each other, but the most profound truth that philosophy has ever given us concerns not only the relation of parts, but the relation of parts to the whole, not to a stationary whole, but to a whole a-making (Follett, 1949).

Furthermore, coordination, as an organizational device, should put forward in any possible situation (project, production, customer relationship, supplier negotiation, etc.) the mechanism that seems to be more appropriate to improve communication and cooperation between organizational units. With reference to this contingency perception of the coordination, the literature suggests various coordination mechanisms that should be deployed in specific context. Conceptually, coordination mechanism is defined as a pattern of action or actor, formal or informal (role) that enhances or facilitates information exchange and increase of mutual understanding between the coordinated entities (Dietrich, 2007). For example, Alsène & Pichault (2007), underline a categorization of coordination mechanisms i.e., plan, schedule (Simon, 1947; March & Simon, 1958), processes standardization, rules, procedures (Thompson, 1967; Lorsch & Lawrence, 1967), mutual adjustment, direct contacts, meetings (Thompson, 1967; Lawrence & Lorsch, 1967; Van De Ven et al., 1976), the integrators positions, liaison roles (Lorsch & Lawrence, 1967; Galbraith, 1973), the project teams (Lorsch & Lawrence, 1967), standing committees (Lawrence & Lorsch, 1967), objectives, results standardization (Galbraith, 1973; Mintzberg, 1979), matrix structure (Galbraith, 1973) and qualifications standardization (Mintzberg, 1979). Each of these mechanisms provides well defined advantages that enable specific enhancements such as risks limitation, quality improvement, opportunities integration, process synchronization, resources optimization, etc.

## *2.2 Project Coordination*

As a temporary organization, project requires specific management tools and appropriate organizational forms. In fact, project organization presents a number of uniqueness (goal targeted, team nature adopted, resources deployed, etc.) that make it different from other kinds of activities and operations in the structure. This difference impacts project management components (scope, resources, quality, communication, etc.) achievement. On the subject of project communication, coordination is a key organizational process which is deployed to enable a better communication in project context. Therefore, coordination process, when put into operation, could be recognized as an important ingredient for success of many projects (Jha & Iyer, 2005). Also, the importance of project coordination is highlighted when this activity is considered not such as an isolated and independent activity, but like a typical management function having its inherent role of varying degrees in all the major management activities that are broadly represented by the four factors, i.e., Planning, Resource handling, Contract implementation, and Team building (Jha, 2013).

Project coordination success requests well-defined skills, specific process and appropriate mechanisms in order to enhance interaction, cooperation and hence work integration of all project stakeholders, particularly according to cross-functional approach.

### *2.2.1 Project Coordination Mechanisms*

In project context, coordination mechanisms clarify how project stakeholders interact and integrate their respective contributions to achieve in part or entirely project goals. These mechanisms should be well-matched to the context of its deployment (Andres & Zmud, 2002). Indeed, project nature (new product development, product improvement, etc.), project team approach (functional, lightweight, cross-functional team), project management approach (single or multi-project management, program, portfolio, etc.), etc. could justify the choice made to deploy specific coordination mechanisms in project context. Nevertheless, these mechanisms are mainly focused on permanent organizational settings (Dietrich, 2007) and in that case don't fit the distinctiveness of project and program context. Subsequently, the literature emphasizes a various number of coordination mechanisms deployed in temporary organizational settings (project and program) such as mutual adjustment (Cusumano & Nobeoka, 1998; Fernez-Walch & Triomphe, 2004), direct supervision (Cusumano & Nobeoka, 1998; Montoya-Wiess, Massey, & Song, 2001), standardization (Milosevic & Patanakul, 2004; Teller, Natalie,

Unger, Kock, & Gemünden, 2012), project team (Clark & Wheelwright, 1992; Hoegl, Weinkauff, & Gemuenden, 2004), plan (Sabherwal, 2003; Espinosa, Lerch, & Kraut, 2002), etc. without corroborating the perfect appropriation of these mechanisms to temporary organizational settings. In other words, the literature emphasizes what is ongoing in the project coordination of leading organizations in different industries (automotive, information technology, electronics, pharmaceutical, etc.).

In order to normalize and integrate project coordination mechanisms in different organizational settings, a coordination strategy should be implemented to assess the variety and complexity of different coordination practices and their importance in different organizational settings (Dietrich, 2007). This strategy should be focused on finding appropriate organizational structures to respond to uncertainty and interdependencies (Brown & Eisenhardt, 1995) and at that time provide a dynamic perspective by suggesting alternative options to coordinate various kind of activities (e.g., product development activities) (Terwiesch, Loch, & Meyer, 2002).

### 2.2.2 Cross-Functional Project Team Coordination

Cross-functional project team convenes members from functional entities such that all technical and functional expertise necessary is represented in the team. While members keep their affiliation with their functional homes, they are also responsible for commonly achieving project success. This way a second reporting line is established (Loch & Kavadias, 2008). In other words, each project now has a cross-functional team, allowing us to strategically place the people on each team who can deal with the many issues of a project as they arise (Brethauer, 2002). This project team approach improves its effectiveness by deploying the matrix organization (Jenkins, Forbes, & Durrani, 1997). Recognized as the most effective approach in new product development project (Brown & Eisenhardt, 1995; Clark & Fujimoto, 1991) the project team is managed by heavy project manager who has extensive control over product concepts as well as the people and budgets involved in component engineering, production preparations and marketing (Cusumano et al., 1998).

The nature of this kind of project team according to cross-functional approach could make coordination one of the most important project success factors. In this context, coordination provides effectiveness about interactions and interdependencies between project stakeholders brought out from heterogeneous functional units (marketing, production, engineering, logistics, etc.). In fact, cross-functional coordination could be recognized as an interrelated activity system (Bharadwaj, Bharadwaj, & Bendoly, 2011) that gather process, activities and tools which are crucial to fit project efficiency. In this perspective, coordination should improve project stakeholders' integration that depends on what extent knowledge and information sharing, stakeholders' commitment, technology information results sharing, etc. (Petersen, Handfield, & Ragatz, 2003) are supported by deploying specific coordination mechanisms.

The literature highlights that project coordination, according to cross-functional approach, deploys specific mechanisms such as standardization (Massey & Kyriazis, 2007; Milosevic et al., 2004), direct supervision (Cusumano et al., 1998), mutual adjustment (Cusumano et al., 1998; Fernez-Walch et al., 2004), etc. The choice of these coordination mechanisms deployed in cross-functional perspective isn't thoroughly theoretically justified. In other words, what is recognized as cross-functional coordination mechanisms doesn't mean an organizational or managerial appropriation rather than an empirical findings stressed by researchers from leading organizations in various industries.

### 2.3 Marketing Integration in Project Management

In some kind of projects (e.g., new product development, product improvement and repositioning, launch of a new activity, etc.), marketing activities are acknowledged as one of the most important contributions that could impact project goals accomplishment. Indeed, market knowledge and marketing efficiency are admitted as success factors in new product development project (Abdel-Kader & Yu-Ching Lin, 2009), known as one of the important steps that built the quality function deployment (also called *house of quality*) by contributing to specify technical requirements. In this perspective, marketing activities identify what the product has to do (Marti, 2007; Katz, 2007), clarify the processes by which a firm might go about identifying new product opportunities given the market structure (Loch et al., 2008), recognized, in customer need-driven model, as an initiator of new ideas resulting from close interactions with customers (Trott, 2005), etc.

In this path, the literature emphasizes the interaction and interdependence that occur between marketing unit and other functional units (R&D, Engineering, Project Management Office, etc.). Especially, interaction and information sharing between marketing and R&D characterize moderately the new product development project literature (e.g., Abdel-Kader et al., 2009; Loch et al., 2008; Huth, 2007). In fact, this marketing-R&D integration has a pervasive effect on new product development project performance (Berkowitz, 2005) and by incorporating marketing ideas into the R&D field, it will become possible to switch from the technology-push paradigm, which

only requires packing in numerous features that correspond to price, to the demand-pull paradigm. ... Companies can narrow down their technologies to those that can turn into products and propose them as an answer to the problems troubling customers, persuading the importance of their necessity. The need to connect with marketing ideas is necessary not only for existing products, but for building new business domains as well (Ishikawa & Tsujimoto, 2006, p. 35). Besides, marketing and other functional units (manufacturing, engineering, etc.) interaction is acknowledged as trade-offs that affect the definition product specifications (Loch et al., 2008).

Furthermore, it could be mentioned that marketing approach is one of research perspectives that researchers use to investigate about how organizations deal with new product development project (e.g., Abdel-Kader et al., 2009; Sorli & Stokic, 2009; Ishikawa et al., 2006), how marketing activities are taking part in connection between corporate strategy level and project level (e.g., Cusumano et al., 1998; Tikkanen, Kujala, & Arto, 2006), how marketing tasks interdependence with other functional activities involved in project management is managed (e.g., Eversheim, 2009; Olsona, Walker, Ruekertc, & Bonnerd, 2001). This marketing position, theoretically formalized and empirically emphasized, provides some insights to what extent marketing could be a management paradigm that shapes the usage of projects to serve strategic intents rather than a functional activity managed at tactical or operational levels.

Coordination mechanisms deployed between marketing and other functional units, in project context, could fit with the contingency perspective. In other words, organization appropriates specific coordination mechanisms to fit parameters of particular project environment (e.g., Espinosa et al., 2002; Olsona et al., 2001).

#### *2.4 Project Communication Efficiency*

Project communication is one of the key project management components. This project management component is defined as a set of processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval and ultimate disposition of project information. ... These processes interact with each other and with processes in the other knowledge areas. Each process occurs at least once in every project and, if the project is divided into phases, it could occur in one or more project phases (Project Management Institute, 2013, pp. 243-245). In fact, project communication processes seek stakeholders' identification, communications planning, information and data sharing, project stakeholders' expectations management, etc. In project management, communication processes support other project management processes through gathering and distributing data and information in efficient way and in a timely manner.

Effective Project communication could be guaranteed by using specific tools like Project Charter, Project Proposal, Change Control Plan, Gantt Chart, Team Charter, Feasibility Study, Cost Estimate Report, Test Plan, etc. Each one of these communication tools corresponds to specific project management knowledge area such as: project integration management, project scope management, cost management, quality management, risk management, etc. (e.g., Dow & Taylor, 2008). Moreover, effective project communication establishment requires from project stakeholders the development of their capability of learning and adaptation (e.g., Zhong & Low, 2008).

From this perspective, the connection between project communication efficiency and project coordination seems to be a grey zone in management literature. Indeed, coordination is approximately profoundly studied in permanent organizational settings none in temporary organizational settings. Besides, coordination between specific project stakeholders, according to cross-functional approach, is also less explored by literature.

Our research object is analyzed through the corroboration of the following question hypotheses:

Question 1: Is there a relationship between coordination mechanisms and communication efficiency in project context?

**Ha:** there is a relationship between mutual adjustment mechanism and communication efficiency.

**Hb:** there is a relationship between direct supervision mechanism and communication efficiency.

**Hc:** there is a relationship between standardization mechanism and communication efficiency.

Question 2: Is there a relationship between coordination mechanisms with each other in project context?

**Hd:** there is a relationship between coordination mechanisms with each other.

Question 3: Does the level of importance given to the participation of marketing manager in project meetings impact the amount of time devoted to?

**He:** the level of importance given to the participation of marketing manager in project meetings has an impact on the amount of time devoted to.

### 3. Methods

In order to test the hypotheses mentioned above, we adopted to use an applied quantitative research because it has several advantages over the qualitative research and it is well adapted to our research.

#### 3.1 Participant (Subject) Characteristics

Because the purpose of this study was to determine the impact of coordination on communication efficiency in the context of small companies, our population of interest consisted of small and medium sized companies in Morocco. That choice came from the fact that moroccan business economy is dominated by this category of companies. Participants who participated in this survey were managers because they are the right people to investigate and well placed to answer to our questions and give us information related to our topic, they agreed to participate with no monetary incentives. We mentioned at the beginning of this article that we sought to analyse the coordination between marketing manager and other functional managers in a project, therefore all service managers (marketing managers, HR managers, finance managers, quality managers and other top management responsables) were involved in the study and were solicited to fill the questionnaire.

#### 3.2 Sampling Procedures

We could achieve a sample size of 107 companies through Convenience sampling that was chosen as a sampling method with the support of several contacts in the business sector because we found many difficulties and challenges to access to data. Convenience sampling is a non probability sampling technique and it is one of the most commonly used sampling procedures (Farrokhi & Mahmoudi-Hamidabad, 2012).

#### 3.3 Measures and Covariates

The method of the questionnaire was adopted as an instrument to collect data, because it is technical and not time consuming for respondents and they feel comfortable with. There were two sections in the questionnaire, the first section contained questions about demographic information (company size, industry, manager position, etc.) and the second section consisted of questions related to the core of the article which are coordination and communication. After we had drafted the questionnaire in English we translated it to french because it is the main language used in the Moroccan business world. The administration of the questionnaire was in the form of hard copies delivered to managers.

Variables were measured using the likert scale 5-point because of its usefulness when variables are ordinal or categorical which our case is. There were two variables of concern in our study: the first variable is the independent variable *project coordination mechanisms* and the second variable is the dependent variable *project communication efficiency*. The first variable has three sub-factors in the form of categories (mutual adjustment, direct supervision and standardization).

According to the third question we had two variables: the first variable is the independent variable which is *the importance given to marketing manager's participation in project meetings* and the second variable is the dependent variable that is *the time devoted to project meetings*. The independent variable contains two categories. The first category is *the companies considering that marketing manager's participation in project meetings is very important*, to simplify the name of this category we called it *participation is very important* and we selected responses rating 5 (very important) in likert scale. The second category is *the companies considering marketing manager's participation in project meetings is not very important* and we called this category *participation is not very important* and we selected responses rating below 5 (not very important). It is worth to note that *participation is not very important* does not mean a negative attitude because it is still important and positive but not *very important* in this scale which we developed it adhoc for this research question. In order to increase the response rate the anonymity was in the heart of our consideration. The questionnaire that was distributed to managers didn't include questions revealing the identity of participants or their companies. The identification questions were general and don't identify precisely participants or the companies they work for, they consisted only of some demographic information (industry, size, etc.).

### 4. Results and Data Analysis

In this section of data analysis, we present the two main analyses. The first and second question hypotheses are to be tested by the Kendall tau-b analysis and the third one is to be tested by the t-student test. The Kendall tau-b test is for testing the hypothesis related to the correlation between coordination mechanisms and communication efficiency, the t-student test is for testing the hypothesis related to the impact of importance given to the marketing manager's participation in project meetings on the amount of time devoted to.

Kendall tau-b test is a nonparametric correlation coefficient test that is suitable for the nature of our research. In

order to use Kendall tau-b test appropriately, two assumptions are required for getting valid results. The first assumption is that variables should be ordinal or continuous in our research this assumption is respected because we used Likert scale that is ordinal. The second assumption requires the existence of a monotonic relationship between the variables. Monotonic relationship means that there is a positive or negative association or relationship between the variables; it can be easily verified by observing a data scatterplot.

Table 1. Correlations

			Mutadjus	Directsuper	Standardis	Communication
Kendall's tau_b	Mutadjust	Correlation Coeff	1.000	.223**	.335**	.245**
		Sig. (2-tailed)	.	.009	.000	.004
		N	107	107	107	107
	Directsuper	Correlation Coeff	.223**	1.000	.266**	.312**
		Sig. (2-tailed)	.009	.	.002	.000
		N	107	107	107	107
	Standardis	Correlation Coeff	.335**	.266**	1.000	.425**
		Sig. (2-tailed)	.000	.002	.	.000
		N	107	107	107	107
	Communication	Correlation Coeff	.245**	.312**	.425**	1.000
		Sig. (2-tailed)	.004	.000	.000	.
		N	107	107	107	107

#### 4.1 Correlation between Coordination Mechanisms and Communication Efficiency

According to the matrix shown above in Table 1 it can be seen that our Kendall tau-b correlation coefficients of the three mechanisms with the communication efficiency are as follows mutual adjustment 0.245, direct supervision 0.312, standardization 0.425. All these values are positives which mean that the three coordination mechanisms are positively correlated with communication efficiency.

#### 4.2 Correlation between Coordination Mechanisms

According to Table 1 Kendall tau-b coefficients of coordination mechanisms between themselves are as follows mutual adjustment\* directsupervision 0.223, mutualadjustment\* standardization 0.335, direct supervision\* standardisation 0.266. Sig (2-tailed) indicates the significance of these correlations. It can be seen also that all correlation coefficients inside the matrix hold two flags which is an indication generated by SPSS that indicates that these correlations are significant at 0.01. According to these outputs we can say confidently that as the use of coordination mechanisms increases the communication efficiency increases and as the use of a coordination mechanism increases the use of the two other mechanisms increases.

#### 4.3 Impact of Importance Given to Marketing Manager's Participation in Project Meetings on the Time Devoted to

Table 2. Group statistics

IMPL*		N	Mean	Std. Deviation	Std. Error Mean
Time devoted	PVI*	42	59.14	26.955	4.159
	PNVI*	65	45.52	23.719	2.942

Note. \*IMPL: importance level\*PVI: Participation is very important \*PNVI: Participation is not very important.

Table 2 summarizes some descriptive statistics. The Mean column shows that the category participation is very important is higher the category participation is not very important, which means that the amount of time spent in meetings by companies considering that the participation of marketing managers in project meeting is very important is higher than those who are not. However, we should examine the next table 3 (Independent Samples Test) to make sure that this difference is significant and it is not due to chance. In terms of standard deviation, the category participation is very important is wider than the category participation is not very important. The standard error of the mean shows that if we had obtained respectively all the means of every sample of 42 and 65 the estimated standard deviations of those means would be respectively 4.159 and 2.942.

Table 3. Independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	upper	
Time devoted	Equal variances assumed	1.668	.199	2.748	105	.007	13.620	4.956	3.793	23.446
	Equal variances not assumed			2.673	79.536	.009	13.620	5.095	3.480	23.759

T-test is a parametric test and has two important assumptions: the first assumption is the equality of variances (homoscedasticity) and which is tested by *Levene's Test for Equality of Variances*, SPSS generates two value lines, the top line is for equal variances assumed and we use this line when this assumption is met and the bottom line is for equal variances not assumed that is used when this assumption is violated. In our case we can see from the table that  $F = 1.668$ ,  $p > 0.05$ , which means that it is not significant and consequently the difference between population variances is not significant, therefore the variances come from populations with equal variances therefore the assumption of the equality of variances is met. The second assumption requires continuous data and this is met because our dependent variable *time devoted* is measured by minutes which is a continuous variable. The  $t$  test is 2.748,  $p = 0.007$  and it is to indicate the significance of our difference (Mean difference: 13.620) which is significant at  $p < 0.01$  level. The 95% CI shows that we are 95 per cent confident that the true populations mean difference will lie in the interval between 3.793 and 23.446. Finally we can say that companies considering that marketing manager's participation in project meetings is very important spend much more time in project meetings than who are not. After having accomplished the analysis, it can be seen that all the hypotheses cited above are confirmed.

## 5. Discussion

The aim of this research is to investigate the marketing integration in project management. Indeed, this integration, according to the cross-functional approach, is investigated throughout the testing of potential connection between project communication efficiency and specific project coordination mechanisms (e.g., Mutual Adjustment, Direct Supervision and Standardization). The study of the association between all project coordination mechanisms is also accomplished. Our findings tackles the empirical results concerning the correlation between project communication efficiency and the three project coordination mechanisms above mentioned. The study of the possible correlation between project coordination mechanisms with each other is adopted in the direction of deepening our analysis. As an accompaniment of this analysis, the relationship between the importance given to marketing implication in project management and the time engaged in cross-functional project meetings is outlined as a key aspect of marketing integration strength.

The first point reveals the positive correlation between project communication efficiency and project coordination mechanisms. Indeed, each one of these three project coordination mechanisms is positively associated with the project communication efficiency which means that the use of these project coordination mechanisms enhance the ability of marketing managers to cooperate and share data and information with other functional managers. Effectively, the tools and processes standardization are found, in the sample studied, to be as the most project communication efficiency catalyst employed by marketing managers followed respectively by direct supervision and mutual adjustment. This ranking of project coordination mechanisms could give us some lessons on the subject of the culture and management values by now implemented in Moroccan SME. For example, the adoption of standardization could be seen as a characteristic of bureaucratization in the structures of Moroccan SMEs when projects are cross-functionally managed. Even more, the preference of these SME regarding direct supervision while projects are led by marketing department could provide some insights about the approved management paradigm.

Theoretically, the deployment of these project coordination mechanisms is recognized as a facilitator for achieving an effective project communication (e.g., Cusumano et al., 1998; Espinosa et al., 2002; Olson et al., 2001; Fernez-Walch et al., 2004; Milosevic et al., 2004). Whilst these project coordination mechanisms are deployed to integrate marketing activities with other functional activities, theory doesn't provide a clear insight if this deployment corresponds to an organizational appropriation made to fit specific context or it is just an

ad hoc choice forced by particular constraints. Even more, marketing and other functional units' integration when projects are piloted in SMEs is not theoretically highly explained.

The second point concerns the project coordination form. In fact, our analysis indicates that there is a positive correlation between the three project coordination mechanisms analyzed. Each one of these project coordination mechanisms is positively associated with the other mechanisms adopted. This finding calls attention to the fact that the marketing managers, in our sample, use more than one project coordination mechanism to interact, share data and hence integrate their works with those of other functional units. Furthermore, the emergence of this project coordination form could be explained by will of these organizations to take advantage from the benefits provided exclusively by each project coordination mechanism and perhaps integrate synergies resulting from the juxtaposition of two or more project coordination mechanisms.

The result of our analysis regarding project coordination form fits relatively the management literature. Indeed, in project context (e.g., new product development project) leading organizations adopt more than one project coordination mechanisms (e.g., Cusumano et al., 1998; Fernez-Walch et al., 2004; Milosevic et al., 2004). This situation is explained by the fact that each coordination mechanism is an appropriate solution to deal with a specific aspect in project context (Dietrich, 2007). Also, each coordination mechanism is a part of a whole named coordination strategy established to provide a dynamic perspective by suggesting alternative solutions to coordinate different type of activities (e.g., product development activities) (Terwiesch et al., 2002; Brown et al., 1995).

The third point concerns the trend of the relationship that articulates marketing implication importance and project meeting time. Effectively, the more marketing implication in project context is recognized as important the higher the amount of time is engaged in cross-functional project meetings. The level of importance of marketing integration underlines the position occupied by marketing manager in project management. Increasingly, in specific industries (food, automotive, bank, retail, etc.) marketing department is highly involved in project management and in some cases (e.g., new product development projects) it is recognized as the cornerstone in project design and leading. Time engaged in cross-functional project meetings could be seen as an aspect of the marketing involvement strength when this kind of activity is crucial for project success and hence it is solicited to make strategy, share data, tasks coordination, project integration, etc. Nevertheless, the amount of time engaged in cross-functional project meetings could be explained by other factors (e.g., project management style, project importance, organizational culture and values, etc.). Our findings clarifies that marketing integration strength could be classified as an explanatory factor of project meeting time, especially when project is managed according to cross-functional approach in SME structure.

## 6. Conclusion

The purpose of this research paper is to contribute to knowledge as regards the relationship between project coordination mechanisms and project communication efficiency. Indeed, we endeavored to study, in Moroccan SMEs, how specific project coordination mechanisms deployed by marketing managers to integrate other functional activities could impact project communication efficiency. Therefore, a statistical analysis was used to check this possible relationship.

Regarding the limits of our research, it could be related predominantly to our choice about the organization sample (Moroccan SMEs). Certainly, our results concern chiefly the marketing integration in project when managed according to cross-functional approach. Furthermore, our analysis is based only on three coordination mechanisms whereas other mechanisms could also be included. Thereby, further research should integrate more than three project coordination mechanisms and it is solicited to investigate in other contexts such as industries, public sector, holding companies, etc.

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